WHAT IS CLAIMED IS

1. An image decompressing method comprising the steps of:

a) determining a size of a decompressed image;

b) determining a decomposition level up to which decomposition-level-type inverse wavelet transform is performed; and

c) decompressing given wavelet transform coefficients up to the decomposition level determined by said step b),

wherein said step b) determines the decomposition level such that the wavelet transform coefficients in the thus-determined decomposition level have a size equal to or nearest to the size of the decomposed image determined by said step a).

2. The method as claimed in claim 1, wherein the decomposition level determined by said step b) is

such that the size of the wavelet transform coefficients of the thus-determined decomposition level is immediately smaller than the size of decompressed image determined by said step a).

3. The method as claimed in claim 1, wherein the decomposition level determined by said step b) is such that the size of the wavelet transform coefficients of the thus-determined decomposition level is immediately larger than the size of decompressed image determined by said step a).

4. The method as claimed in claim 1, further comprising the step d) of performing size-change operation on the decompressed image obtained by said step c) so as to obtain an image having a size equal to the size determined by said step a).

5. The method as claimed in claim 1, wherein the wavelet transform coefficients to be decompressed by said step c) comprise a code stream coded in accordance with JPEG2000, Image Coding System (ISO/IEC, FCD 15444-1).

6. The method as claimed in claim 4, further comprising the step e) of performing interpolation operation so as to obtain a bitmap image having the size equal to the size determined by said step a) from the size-changed image obtained by said step d).

7. The method as claimed in claim 6, wherein said step e) comprises the step of performing linear interpolation.

8. The method as claimed in claim 6, wherein said step e) comprises the step of using pixel values of pixels near pixels included in the decompressed image.

9. An image decompressing method comprising the steps of:

a) determining a size of a decompressed image;

b) determining a decomposition level up to which decomposition-level-type inverse subband transform is performed; and

c) decompressing given subband transform coefficients up to the decomposition level determined by said step b),

wherein said step b) determines the decomposition level such that subband transform coefficients in the thus-determined decomposition level have a size equal to or nearest to the size of the decomposed image determined by said step a).

10. The method as claimed in claim 9, wherein the decomposition level determined by said step b) is such that the size of the subband transform coefficients of the thus-determined decomposition level is immediately smaller than the size of decompressed image determined by said step a).

11. The method as claimed in claim 9, wherein the decomposition level determined by said step b) is such that the size of the subband transform coefficients of the thus-determined decomposition level is immediately larger than the size of decompressed image determined by said step a).

12. The method as claimed in claim 9, further comprising the step d) of performing size-change operation on the decompressed image obtained by said step c) so as to obtain an image having a size equal to the size determined by said step a).

13. The method as claimed in claim 12, further comprising the step e) of performing interpolation operation so as to obtain a bitmap image having the size equal to the size determined by said step a) from the size-changed image obtained by said step d).

14. The method as claimed in claim 13, wherein said step e) comprises the step of performing linear interpolation.

15. The method as claimed in claim 13, wherein said step e) comprises the step of using pixel values of pixels near pixels included in the decompressed image.

16. An image decompressing method comprising the steps of:

a) determining a size of a decompressed image;

b) determining a decomposition level up to which decomposition-level-type inverse wavelet transform is performed; and

c) decompressing given wavelet transform coefficients up to the decomposition level determined by said step b),

wherein said step b) determines the decomposition level such that the wavelet transform coefficients in the thus-determined decomposition level have a size further smaller than the size of the wavelet transform coefficients in the decomposition level immediately smaller than the size of the decomposed image determined by said step a).

17. The method as claimed in claim 16, further comprising the step d) of producing a lower-frequency component from the LL-subband coefficients in the last decomposition level when the size determined by said step a) is smaller than the size of said LL subband

coefficients in the last decomposition level.

18. The method as claimed in claim 17, wherein said step d) comprises the step utilizing the decomposition-level-type wavelet transform formula used in the relevant system as it is.

19. The method as claimed in claim 17, wherein said step d) comprises the step of averaging adjacent pixels

20. The method as claimed in claim 16, further comprising the step d) of performing size-change operation on the decompressed image obtained by said step c) so as to obtain an image having a size equal to the size determined by said step a).

21. The method as claimed in claim 20, further comprising the step e) of performing interpolation operation so as to obtain a bitmap image having the size equal to the size determined by said step a) from the size-changed image obtained by said step d).

22. The method as claimed in claim 16, wherein the wavelet transform coefficients to be decompressed by said step c) comprise a code stream coded in accordance with JPEG2000, Image Coding System (ISO/IEC, FCD 15444-1).

23. An image decompressing method comprising the steps of:

a) determining a size of a decompressed image;

b) determining a decomposition level up to which decomposition-level-type inverse subband transform is performed; and

c) decompressing given subband transform coefficients up to the decomposition level determined by said step b),

wherein said step b) determines the decomposition level such that subband transform coefficients in the thus-determined decomposition level have a size further smaller than the size of the subband transform coefficients in the decomposition level immediately smaller than the size of the decomposed image determined by said step a).

24. The method as claimed in claim 23, further comprising the step d) of producing a lower-frequency component from LL-subband coefficients in the last decomposition level when the size determined by said step a) is smaller than the size of said LL-subband coefficient in the last decomposition level.

25. The method as claimed in claim 24,

wherein said step d) comprises the step of utilizing the decomposition-level-type wavelet transform formula used in the relevant system as it is.

26. The method as claimed in claim 24, wherein said step d) comprises the step of averaging adjacent pixels

27. The method as claimed in claim 23, further comprising the step d) of performing size-change operation on the decompressed image obtained by said step c) so as to obtain an image having a size equal to the size determined by said step a).

28. The method as claimed in claim 27, further comprising the step e) of performing

interpolation operation so as to obtain a bitmap image having the size equal to the size determined by said step a) from the size-changed image obtained by said step d).

29. An image decompressing apparatus comprising:

a size determining part determining a size of a decompressed image;

a level determining part determining a decomposition level up to which decomposition-level-type inverse wavelet transform is performed; and

a decompressing part decompressing given wavelet transform coefficients up to the decomposition level determined by said level determining part,

wherein said level determining part determines the decomposition level such that wavelet transform coefficients in the thus-determined decomposition level have a size equal to or nearest to the size of the decomposed image determined by said size determining part.

30. The apparatus as claimed in claim 29, wherein the decomposition level determined by said level determining part is such that the size of the wavelet transform coefficients of the thus-determined decomposition level is immediately smaller than the size of decompressed image determined by said size determining part.

31. The apparatus as claimed in claim 29, wherein the decomposition level determined by said level determining part is such that the size of the wavelet transform coefficients of the thus-determined decomposition level is immediately larger than the size of decompressed image determined by said size determining part.

32. The apparatus as claimed in claim 29, further comprising a size-change part performing size-change operation on the decompressed image obtained by

said decompressing part so as to obtain an image having a size equal to the size determined by said size determining part.

33. The apparatus as claimed in claim 29, wherein the wavelet transform coefficients to be decompressed by said step c) comprise a code stream coded in accordance with JPEG2000, Image Coding System (ISO/IEC, FCD 15444-1).

34. The apparatus as claimed in claim 32, further comprising an interpolation part performing interpolation operation so as to obtain a bitmap image having the size equal to the size determined by said size determining part from the size-changed image obtained by said size-change part.

35. The apparatus as claimed in claim 34, wherein said interpolation part performs linear interpolation.

36. The apparatus as claimed in claim 34, wherein said interpolation part uses pixel values of pixels near pixels included in the decompressed image.

37. An image decompressing apparatus comprising:

a size determining part determining a size of a decompressed image;

a level determining part determining a decomposition level up to which decomposition-level-type inverse subband transform is performed; and

a decompressing part decompressing given subband transform coefficients up to the decomposition level determined by said level determining part,

wherein said level determining part determines the decomposition level such that subband transform

coefficients in the thus-determined decomposition level have a size equal to or nearest to the size of the decomposed image determined by said size determining part.

38. The apparatus as claimed in claim 37, wherein the decomposition level determined by said level determining part is such that the size of the subband transform coefficients of the thus-determined decomposition level is immediately smaller than the size of decompressed image determined by said size determining part.

39. The apparatus as claimed in claim 37, wherein the decomposition level determined by said level determining part is such that the size of the subband transform coefficients of the thus-determined decomposition level is immediately larger than the size of decompressed image determined by said size

determining part.

40. The apparatus as claimed in claim 37, further comprising a size-change part performing size-change operation on the decompressed image obtained by said decompressing part so as to obtain an image having a size equal to the size determined by said size determining part.

41. The apparatus as claimed in claim 40, further comprising an interpolation part performing interpolation operation so as to obtain a bitmap image having the size equal to the size determined by said size determining part from the size-changed image obtained by said size-change part.

42. The apparatus as claimed in claim 41, wherein said interpolation part performs linear interpolation.

43. The apparatus as claimed in claim 41, wherein said interpolation part uses pixel values of pixels near pixels included in the decompressed image.

44. An image decompressing apparatus comprising:

a size determining part determining a size of a decompressed image;

a level determining part determining a decomposition level up to which decomposition-level-type inverse wavelet transform is performed; and

a decompressing part decompressing given wavelet transform coefficients up to the decomposition level determined by said level determining part,

wherein said level determining part determines

the decomposition level such that wavelet transform coefficients in the thus-determined decomposition level have a size further smaller than the size of the decomposition level immediately smaller than the size of the decomposed image determined by said size determining part.

45. The apparatus as claimed in claim 44, further comprising a lower-frequency component producing part producing a lower-frequency component from the LL subband coefficients in the last decomposition level when the size determined by said step a) is smaller than the size of said LL subband in the last decomposition level.

46. The apparatus as claimed in claim 45, wherein said lower-frequency component producing part utilizes the decomposition-level-type wavelet transform formula used in the relevant system as it is.

47. The apparatus as claimed in claim 45, wherein said lower-frequency component producing part takes averages of adjacent pixels

48. The apparatus as claimed in claim 44, further comprising a size-change part performing size-change operation on the decompressed image obtained by said decompressing part so as to obtain an image having a size equal to the size determined by said size determining part.

49. The apparatus as claimed in claim 48, further comprising an interpolation part performing interpolation operation so as to obtain a bitmap image having the size equal to the size determined by said size determining part from the size-changed image obtained by said size-change part.

50. The apparatus as claimed in claim 44, wherein the wavelet transform coefficients to be decompressed by said decompressing part comprise a code stream coded in accordance with JPEG2000, Image Coding System (ISO/IEC, FCD 15444-1).

51. An image decompressing apparatus comprising:

a size determining part determining a size of a decompressed image;

a level determining part determining a decomposition level up to which decomposition-level-type inverse subband transform is performed; and

a decompressing part decompressing given subband transform coefficients up to the decomposition level determined by said level determining part,

wherein said level determining part determines the decomposition level such that subband transform coefficients in the thus-determined decomposition level have a size further smaller than the size of the decomposition level immediately smaller than the size of the decomposed image determined by said size determining

part.

52. The apparatus as claimed in claim 51, further comprising a lower-frequency component producing part producing a lower-frequency component from the LL subband coefficients in the last decomposition level when the size determined by said size determining part is smaller than the size of said LL subband of the last decomposition level.

53. The apparatus as claimed in claim 52, wherein said lower-frequency component producing part utilizes the decomposition-level-type wavelet transform formula used in the relevant system as it is.

54. The apparatus as claimed in claim 52,

wherein said lower-frequency component producing part takes averages of adjacent pixels.

55. The apparatus as claimed in claim 51, further comprising a size-change part performing size-change operation on the decompressed image obtained by said decompressing part so as to obtain an image having a size equal to the size determined by said size determining part.

56. The apparatus as claimed in claim 55, further comprising an interpolation part performing interpolation operation so as to obtain a bitmap image having the size equal to the size determined by said size determining part from the size-changed image obtained by said size-change part.

57. An information recording medium recording therein a software program for causing a computer to execute the steps of:

a) determining a size of a decompressed image;

b) determining a decomposition level up to which decomposition-level-type inverse wavelet transform is performed; and

c) decompressing given wavelet transform coefficients up to the decomposition level determined by said step b),

wherein said step b) determines the decomposition level such that wavelet transform coefficients in the thus-determined decomposition level have a size equal to or nearest to the size of the decomposed image determined by said step a).

58. An information recording medium recording therein a software program for causing a computer to execute the steps of:

a) determining a size of a decompressed image;

b) determining a decomposition level up to which decomposition-level-type inverse subband transform

is performed; and

c) decompressing given subband transform coefficients up to the decomposition level determined by said step b),

wherein said step b) determines the decomposition level such that subband transform coefficients in the thus-determined decomposition level have a size equal to or nearest to the size of the decomposed image determined by said step a).

59. An information recording medium recording therein recording therein a software program for causing a computer to execute the steps of:

a) determining a size of a decompressed image;

b) determining a decomposition level up to which decomposition-level-type inverse wavelet transform is performed; and

c) decompressing given wavelet transform coefficients up to the decomposition level determined by said step b),

wherein said step b) determines the decomposition level such that wavelet transform

coefficients in the thus-determined decomposition level have a size further smaller than the size of the wavelet transform coefficients in the decomposition level immediately smaller than the size of the decomposed image determined by said step a).

60. An information recording medium recording therein a software program for causing a computer to execute the steps of:

a) determining a size of a decompressed image;

b) determining a decomposition level up to which decomposition-level-type inverse subband transform is performed; and

c) decompressing given subband transform coefficients up to the decomposition level determined by said step b),

wherein said step b) determines the decomposition level such that subband transform coefficients in the thus-determined decomposition level have a size further smaller than the size of the subband transform coefficients in the decomposition level immediately smaller than the size of the decomposed

image determined by said step a).